



Executive Summary

This is a historically important moment for many Dutch pension funds. After years of planning, several funds are expected to transition to the new pension system on January 1, 2026, with most others transitioning between then and January 1, 2027.

Many funds have increased interest rate hedging into the transition, but is that enough? Our stress testing suggests that **coverage ratios could drop sharply in a significant equity market downturn.**

While the fall in equities into April was mild by the standards of stress events such as 2008 and 2020, for some funds even a repeat of that move near transition dates could impact plans. If a more severe downturn was to occur, many funds could be impacted.

The good news is that with the V-shaped recovery, **hedging costs are well below historic averages**, despite a backdrop of policy uncertainty, geopolitical tensions and high valuations. **We believe that pension funds should be actively considering adding hedges to ensure a smooth transition.**

Introduction

The uncertain policy environment over the last several months and the drop in equities that culminated in the trough of early April are a reminder that change can happen fast, and that markets can move quickly. We have since seen a V-shaped recovery – so can funds just look through the volatility or is this a window for action?

For long-term investors, often it is sensible to ignore short-term volatility – it is hard to predict and in the long-run markets do tend to rise. However, when there are near-term actions planned – like a pension transition on a certain date – it is important to know how much volatility you can take. "Short-term volatility" tends only to be identifiable in hindsight. When markets are falling rapidly, it is often hard to have confidence in the path ahead. In practice, most investors have a pain point: and history is a reminder that sometimes markets get a lot worse before they get better. Planning ahead can help avoid being forced into action during difficult times.

In April, President Trump ultimately retreated, announcing a 90-day pause on most of his new tariffs. However, it is also important to remember the reaction of the US Federal Reserve. Fed Chairman Jerome Powell was clear that the situation in April was very different to that seen in March 2020. Back then, deflation risks were top of mind as inflation had stayed below target despite strong growth and low unemployment. Policy makers were keen to act bigger and faster to avoid the mistakes of 2008. Now, upside risks to inflation are a major consideration and the hurdle for easing is much higher. As a result, the Fed was in no hurry to step in. We believe it would take a deep and sustained downturn for policymakers to consider the kind of policy 'bazooka' that rescued markets in March 2020.

With pension transition dates approaching, risk management has been an area of focus for funds. So far, we have seen a widespread increase in interest rate hedging to help reduce risks to coverage ratios. However, we have seen limited actions in other asset classes. In this short paper, we look at how funds might fare in different risk scenarios and ways of further mitigating risks. Our analysis suggests more funds could benefit from looking at hedging some of their equity risk.

Why consider hedging transition risks?

The pension transition represents a major shift that creates a near-term focal point for pension funds. As the transition will happen on a specific day for each fund, participants' current entitlements must all be valued on that day. Those valuations will have long-term implications. If markets are calm,



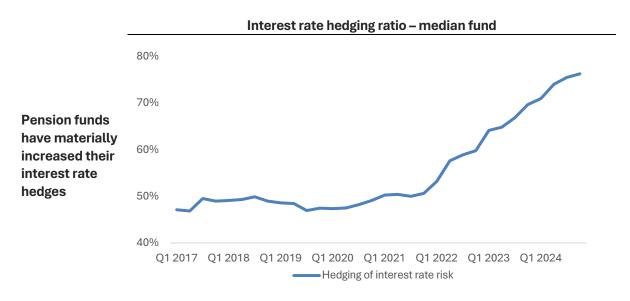
participants and pension fund managers should see a smooth transition. However, if we were to see a significant downturn in equity markets or major shifts in interest rates just prior to the transition, the picture quickly gets more complex. The valuation of participants' pension assets may shift significantly as asset values and discount rates change. Coverage ratios could drop sharply. In some cases, the transition plans of whole funds may need to be changed. Within the fund, the relative valuations of different age groups' entitlements can also see big shifts.

As pension funds have designed their transition plans, several have assumed that their coverage ratios would be at or above a certain minimum level coming into the transition, often around 105%. Below this level, further compromises often involve difficult trade-offs, such as cutting pension benefits. If coverage ratios fall far enough, funds may need to delay the transition. A material delay would be costly, as many participants stand to benefit from the post-transition model. It would also cause additional transition-related expenses.

While not the only transition risk, our conversations suggest that coverage ratio risk has been a dominant concern for funds, and so we focus primarily on this in our stress scenarios. Coverage ratio changes are driven by the relationship between two factors: changes in the value of assets and changes in the value of liabilities. The dominant factor on the asset side is typically equity risk, while the dominant factor on the liability side is (long-term) interest rates, which are used to discount the future pension entitlements of plan participants.

What hedging have funds done so far?

As transition dates have neared, we have seen many funds start to take action. So far, funds have generally focused on the liability side and have increased their interest rate hedging ratios, generally through linear derivatives such as interest rate swaps. We have seen the median fund increase its interest rate hedging ratio from 51% at the end of 2021 to 79% as of Q1 2025. As some larger funds have hedged less, the weighted average is lower at 68%.



The earlier part of this increased hedging can partly be explained as a response to the rise in interest rates in 2022. The dramatic rise in long-dated interest rates (from 0.5% to 2.4% in 30-year euro swaps) caused a fall in pension asset values but materially boosted coverage ratios, as liabilities fell faster than assets. This led more funds to hedge to preserve this position. However, since the WTP act came into force on 1 July 2023, median coverage ratios are roughly unchanged (1 percentage point lower), while

¹ Sources: True Partner, DNB, data as of Q4 2024. We exclude funds with less than EUR 500mn in assets.



the median hedging ratio has risen a further 14 percentage points, with most of that rise taking place in 2024 and YTD in 2025. Anecdotal evidence from individual funds points in the same direction: funds are also looking to hedge transition risks.

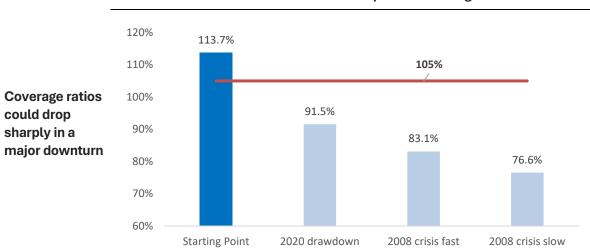
Have funds done enough?

As we've seen above, the data suggests funds have hedged much of the liability side of their balance sheets. Thus far we have seen less focus on risks to the asset side of the balance sheet. Have funds done enough? Below we look at some stress scenarios – these suggest many funds may benefit from looking at hedging the asset side too.

On the asset side, the biggest exposures for most funds are public equity, private equity, corporate bonds, real estate, mortgages and government bonds. Taking into account relative weights and risk profiles, equities are typically the biggest risk factor, followed by credit risk and interest rate risk. Equity risk is not only present in public and private equity, but also positively correlated to the credit risk components of corporate bonds, real estate and mortgages, particularly for higher yielding varieties of these assets. As interest rate risk also drives changes in liabilities, this risk factor can be seen as somewhat offsetting countervailing risks on the liability side. As noted above, many funds have already focused on hedging interest rate risks. ² That leaves equity risk as the dominant risk to consider.

Our analysis suggests that many funds would have a difficult experience in an equity market shock. Below we show the results of a stress scenario analysis using our proprietary risk models. We take a fund with a starting coverage ratio of 113.7% - the average for industry-wide funds at the end of April 2025 – and what we term a medium risk asset allocation (50% equities, 25% government bonds, 20% corporate bonds and 5% mortgages). We use solely public market assets because of the wider variation in private market portfolios. We add an interest rate hedging overlay such that 75% of interest rate risk is hedged. We then apply a series of historical stress scenarios. We show the starting point coverage ratio (113.7%) and the new coverage ratio after applying each shock. We focus on the two most significant equity shocks of the last 20 years, the 2020 drawdown during the early stages of the Covid pandemic and the financial crisis in 2008.

Stress scenario results – impact on coverage ratio



² There can be significant differences in duration between interest rate risks arising from corporate credit, mortgages and real estate relative to the typically long-dated interest rate risks of liabilities. This can also give funds significant risk exposures to changes in yield curve shape. We would be happy to discuss those risks directly with funds but do not tackle those issues further in this paper.

³ We assume that at the starting point the present value of liabilities is equally distributed across 10 different age cohorts, with an average participant age of 45. As we assume a high degree of interest rate hedging, this offsets a significant part of the impact of changes in liabilities. That also reduces the impact of the assumptions around the distribution of liabilities across age cohorts.



In 2020, the drawdown took just under five weeks. For 2008, we show the results for two periods, "2008 crisis fast" and "2008 crisis slow". The fast drop is from mid-September to early December 2008 (about 2.5 months) and saw an over 30% fall in equities, a substantial widening in credit spreads and an over 100bps fall in long-term swap rates. "2008 crisis slow" includes the much longer period from mid-July 2007 to early March 2009 that captures the full drawdown in equities of over 50%.

We would suggest most focus on the faster moves in 2020 and "2008 crisis fast". That kind of speed makes it very difficult to react during the event, as losses mount and hedging costs rise rapidly. The red line is at a coverage ratio of 105%, a level that many funds are targeting as a minimum coverage ratio into the transition. Our analysis suggests that the recurrence of a crisis equivalent to that seen in Q1 2020 or 2008 could see several funds not only have to delay the transition but also consider cutting pension payments.

The moves in early April were reminiscent of the start of the drawdown in late February 2020, which then accelerated as news flow worsened. While the moves seen this year were not of the scale of 2020 or 2008, even that move would test some funds. Using the same assumptions as above for the coverage ratio, portfolio, interest rate hedging and liability structure, a fund with a starting coverage ratio of 113.7% would see a drop to 106.4% during the "tariff tantrum" (from the peak in equities in mid-February to early April 2025). That is despite a much smaller move in credit spreads (about 1/3 of the move in 2020 and just a tenth of the 2008 move) and a rise in long-term interest rates (so reducing rather than increasing liabilities). Had President Trump not retreated from his tariffs, markets may have seen much bigger losses. As we have seen before, rapid unwinds of risk can become self-perpetuating. Imagine that was the position with just a few weeks to the transition date, where just a small further drawdown would necessitate a potentially major shift in transition plans – what is the right thing to do in that situation as a CIO? Planning ahead can help.

Some funds will be in the privileged position of having higher coverage ratios than the industry-wide average. Some will also have lower allocations to equities. However, even a fund with a coverage ratio of 120% and a much smaller equity allocation (30%).⁴ would see a drop below 105% in our 2020 scenario (and below 95% in the 2008 scenarios), as shown below. For a fund in this starting position, hedging to limit downside risks is also cheaper, as a smaller gain is needed from the hedge.

Higher coverage ratio, lower equity risk: stress scenario results



Readers may wonder why we do not show results for the 2022 equity drawdown too. This is because a repeat of the dramatic rise in interest rates seen in 2022 would substantially raise coverage ratios for most funds. Of course, as seen in 2022, moving yields that much (which would take 30-year yields to almost 5%) would also cause large capital losses for many funds (~30% for our model portfolio above). That would particularly impact those switching out of bonds post-transition (mostly younger

 $^{^4}$ Here we use an asset allocation of 30% equities, 40% government bonds, 25% corporate bonds and 5% mortgages



participants), but it would not prevent funds transitioning. As such, we don't tackle that issue further in this paper. For those interested, we cover those risks in our earlier piece "Navigating the Road Ahead", published in 2023. That piece is available on our website here.

What options are available for funds?

The simplest form of risk management is to take off risk; the alternative is to limit downside risk through hedges, for example non-linear hedges such as options.

So far, we have seen a small number of funds choose the risk reduction path, reducing equity holdings and raising cash or short-term fixed income allocations. However, taking off risk also has a significant cost. Funds invest in higher risk assets to generate higher returns, and taking off risk gives up those excess returns. For example, let's assume a fund expects equities to deliver a long-term return of cash + 4% per year. That means that for every euro taken out of equities and moved into cash, the fund is giving up an expected excess return of 4%. That is costly. In coverage ratio terms, using our asset allocation above (50% in equities, 113.7% coverage ratio), giving up a 4% return for a year costs over 2 points of expected increase in coverage ratio. Transaction costs will also detract from returns. Furthermore, materially reducing equity risk is also at odds with many funds' longer-term plans, as equity allocations are broadly expected to increase post-transition.

Given the downsides of reducing equity allocations, we think funds should consider non-linear hedges. Happily, the cost of non-linear hedges such as put options is well below the historical average, as we show further below. Some funds have already started on this path.⁵

How can funds approach hedging?

Before delving into market pricing, it's important to work out what you want to hedge. Pension funds may find it helpful to think about the following questions:

Stress testing

- · What would happen to the portfolio in different market scenarios?
- How would this impact the coverage ratio and assets?
- How would it impact different age cohorts?

What is the cost of protection?

- · What hedging solutions would mitigate the risks?
- What are the potential costs and benefits?
- · Are there attractive trade-offs that can help reduce or offset costs?

How should any protection be managed?

- If markets drop substantially and the hedges increase in value, would the fund consider adjusting its protection?
- Are there other scenarios where it could be beneficial to adjust hedges?

An experienced partner can help to identify attractive hedges with the best risk/reward for the fund, and to implement and manage these over their life. At the outset, they should understand a fund's risk tolerance and what scenarios a fund wants to avoid. It is also important to assess potential basis risks between the portfolio and potential hedges. For example, equity risk may be spread across public and private markets, and equity portfolios may deviate from common benchmarks. The impact of other

⁵ As noted for example by IPE, "Dutch pension funds hedge equity risk in run-up to DC transition", 25 March 2025



asset classes can also be considered. For example, corporate bond exposures may be hedged separately, or their expected returns could be taken into account when establishing the appropriate level of equity hedging.

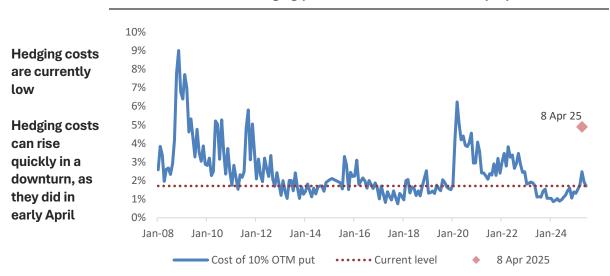
Another factor to consider is having a plan of action if a market shock happens prior to the transition. Currently, hedging costs are well below long-term average levels. In a shock, hedges will likely deliver high returns for the funds. That is good news! However, at that point the forward-looking cost of continuing to hold the same hedges will be higher, perhaps much higher – for example, options may become substantially in-the-money. At what point should you monetise hedges, or adjust positions? Working with an experienced partner can help to plan for and take advantage of opportunities.

What hedging options are available?

As mentioned above, the cost of hedging is currently much lower than the historical average. That represents a potentially attractive opportunity for pension funds. Below we provide an illustrative example, showing the cost of some simple hedges and provide context of their historical costs.

The simplest hedge is to buy put options on equity indices; this mitigates the downside risk. Funds can choose the level of downside at which they wish to cap losses, and target positions around this level. Below we show a simple example, using the cost of a 6-month put option on the S&P 500 with a strike price 10% below the current level. For our last observation (30th June), we take an option expiring on 31 December 2025, to align with a hypothetical January 1, 2026 transition date. The cost of that hedge is currently relatively low, below nearly two-thirds of the historical data points.

Cost of hedging (S&P 500, 6-month 10% OTM put)⁷



At the trough in the S&P 500 in early April, a similarly out of the money hedge would have cost around 3x as much (the pink diamond on the chart) and had a strike price around 20% lower. With the market now up YTD, hedging 10% below current levels is only 5% below end-2024 levels. Limiting potential losses to this level could help funds limit the downside to coverage ratios.

To reduce, or potentially offset hedging costs entirely, funds can also sell call options, earning a premium in exchange for temporarily limiting the potential upside return of their equity holdings. This is known as a 'collar' strategy. For example, a fund could buy put options 10% below the current market

⁶ Sources: True Partner, Goldman Sachs, Bloomberg. Data from January 2008 to June 2025. Pricing data is based on market quotes and provided for illustrative purposes only. Pricing can change rapidly and be influenced by many factors.

 $^{^{7}}$ Source as above, data from Jan 2008 to June 2025. For illustrative purposes only.



price and sell call options 10% above the current market price, meaning gains above that level would be foregone. For a fund expecting equities to return cash +4% per year (as in our illustration above), that would only be foregoing gains some way above the expected return.

Using current market pricing as of the end of June, that kind of structure in the S&P 500 with an expiry date of 31 December 2025 would cost approximately 0.8% of the notional exposure, just under half the cost of only buying the put option. In coverage ratio terms, that would be 0.4pts. If a fund was happy to limit its gain to 5% above current levels – still an over 10% full year return on the S&P 500 for 2025 (around 12% including expected dividends) – then the fund could be *paid* 0.8% of the notional exposure to hold this position (long a 10% out of the money put and short a 5% out of the money call) and the coverage ratio would go *up* by 0.4pts. One consideration is that when selling call options, funds may be required to post collateral if the market rises above the call strike. There are several ways to proactively manage and mitigate this risk which we would be happy to discuss with interested funds.

Funds can also consider more sophisticated hedging strategies, such as combining put options with long volatility positions, or dynamic hedging strategies. These generally offer cheaper risk mitigation and higher convexity in major shocks (e.g. a 2020 or 2008 scenario) but have lower certainty of return. A combination of approaches can help to add convexity while reducing costs, but funds may also prefer the simplicity and certainty of solely using outright put options. It's important to note that while equity hedging has not been a significant component of most Dutch pension funds over the last decade, all these strategies have a long history of being deployed by large pension funds elsewhere in the world.

Hedging should be seen as enabling risk taking in other parts of the portfolio, enhancing overall returns A common argument against hedging is cost: when a pension fund has a long-term horizon, why incur a cost to hedge? It is possible to create zero-cost hedges, as illustrated above. But for many the right solution will involve a cost. The pension fund transition brings many benefits, but to get there it is necessary to transition. As that has to happen at a specific date, that brings short-term risks to consider and manage. Hedges should be seen in the context of the portfolio. In a portfolio every component has a complimentary role, just like every player in a sports team. As Dutch football legend Johan Cruyff said: "What would you rather have? One good 11 or 11 good 1's?" Hedging should be seen as enabling risk taking in other parts of the portfolio, enhancing overall returns.

Hedging can seem like a complex topic, but we believe it is an important one for pension funds to consider. We hope our framework above can be a helpful starting point. Working with an experienced partner can enable a fund to evaluate different scenarios, identify an attractive solution and – if the event hits – monetise gains effectively. But we would suggest that it is better to act now, while market pricing remains attractive – to quote Johan Cruyff again: "You have got to shoot, otherwise you can't score."

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For further information, please contact investorrelations@truepartnercapital.com

⁹ Based on a coverage ratio of 113.7% and a 50% equity allocation. Uses market pricing as of 30 Jun 2025. For illustrative purposes only.



⁸ Source as above, as of 30 June 2025. For illustrative purposes only.



Disclaimer

Data as of June 2025 unless indicated otherwise. Sources are noted in footnotes; additional data sourced from True Partner, Bloomberg, Goldman Sachs, Bank of America. Chart data is from Bloomberg / True Partner unless noted above. Data sourced from third parties is believed to be accurate, but no representations are made as to its accuracy. This document has been prepared and issued by True Partner Advisor Limited ("True Partner"). True Partner Advisor Limited is a CFTC registered Commodity Pool Operator and Commodity Trading Advisor. Its affiliates include True Partner Capital USA Holding, Inc., a SEC registered Investment Adviser and True Partner Advisor Hong Kong Limited, a Hong Kong SFC licensed Type 9 Asset Manager. This piece is being provided by True Partner Advisor Limited, not its affiliates. This presentation is confidential, is intended only for the person to whom it has been provided and under no circumstance may a copy be shown, copied, transmitted, or otherwise given to any person other than the authorized recipient without the prior written consent of True Partner. Nothing herein constitutes an offer to sell, or solicitation of an offer to purchase, any securities, nor does it constitute an endorsement with respect to any investment strategy or vehicle. Past performance does not guarantee or indicate future results. There is no guarantee that the objectives of any investment strategy will be achieved.

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